FILE LAST UPDATED: 23 Mar 2009 (20090323/ED)

Caplus now includes complete International Patent Classification (IPC) reclassification data for the third quarter of 2008.

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http://www.cas.org/legal/infopolicy.html

This file contains CAS Registry Numbers for easy and accurate substance identification.

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L1 STRUCTURE UPLOADED

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L1 HAS NO ANSWERS
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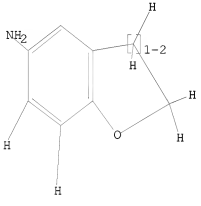

Structure attributes must be viewed using STN Express query preparation.

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REGISTRY INITIATED
Substance data SEARCH and crossover from CAS REGISTRY in progress...
Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.

FULL SEARCH INITIATED 18:16:01 FILE 'REGISTRY'
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100.0% PROCESSED 366191 ITERATIONS 6 ANSWERS
SEARCH TIME: 00.00.06

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L4          17 L3 AND PY<2003

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L4   ANSWER 1 OF 17  CAPLUS  COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER:         2001:827030  CAPLUS
DOCUMENT NUMBER:          136:177463
TITLE:                    6-(4-Benzylpiperazin-1-yl)benzodioxanes as selective
                          ligands at cloned primate dopamine D4 receptors
AUTHOR(S):                Hodgetts, Kevin J.; Kieltyka, Andrzej; Brodbeck,
                          Robbin; Tran, Jennifer N.; Wasley, Jan W. F.;
                          Thurkauf, Andrew
CORPORATE SOURCE:         Neurogen Corporation, Branford, CT, 06405, USA
SOURCE:                   Bioorganic & Medicinal Chemistry (2001),
                          9(12), 3207-3213
                          CODEN: BMECEP; ISSN: 0968-0896
PUBLISHER:                Elsevier Science Ltd.
DOCUMENT TYPE:            Journal
LANGUAGE:                 English
OTHER SOURCE(S):          CASREACT 136:177463
AB   A series of novel 6-(4-benzylpiperazin-1-yl)benzodioxanes were prepared and
     screened at selected dopamine receptor subtypes.
     6-(4-[4-Chlorobenzyl]piperazin-1-yl)benzodioxane had high affinity and
     selectivity for the D4 dopamine receptor subtype and was identified as a
     D4 antagonist via its attenuation of dopamine-induced GTPγ35S
     binding at the D4 receptor.
IT   50386-54-4
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (benzylpiperazinyl benzodioxanes as selective ligands at cloned primate
        dopamine D4 receptors)
RN   50386-54-4  CAPLUS
CN   2H-1-Benzopyran-6-amine, 3,4-dihydro-  (CA INDEX NAME)
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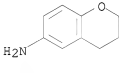

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REFERENCE COUNT:          18    THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS
                                RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4   ANSWER 2 OF 17  CAPLUS  COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER:         2001:396489  CAPLUS
DOCUMENT NUMBER:          135:5535
TITLE:                    Preparation and use of derivatives of
                          dihydrofuro[3,4-b]quinolin-1-ones as anti-tumor agents
```

INVENTOR(S): Husson, Henri-Philippe; Giorgi-Renault, Sylviane; Tratrat, Christophe; Atassi, Ghanem; Pierre, Alain; Renard, Pierre; Pfeiffer, Bruno
PATENT ASSIGNEE(S): Adir et Compagnie, Fr.; Les Laboratoires Servier
SOURCE: Eur. Pat. Appl., 35 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
EP 1103554	A1	20010530	EP 2000-403255	20001122	<--
EP 1103554	B1	20030312			
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO					
FR 2801310	A1	20010525	FR 1999-14771	19991124	<--
FR 2801310	B1	20040416			
MX 2000011240	A	20020523	MX 2000-11240	20001115	<--
JP 2001151756	A	20010605	JP 2000-355438	20001122	<--
JP 3566649	B2	20040915			
AT 234305	T	20030315	AT 2000-403255	20001122	
US 6548515	B1	20030415	US 2000-718917	20001122	
ES 2194692	T3	20031201	ES 2000-403255	20001122	
NO 2000005922	A	20010525	NO 2000-5922	20001123	<--
HU 2000004704	A2	20011128	HU 2000-4704	20001123	<--
CA 2326710	A1	20010524	CA 2000-2326710	20001124	<--
CA 2326710	C	20060627			
ZA 2000006912	A	20010605	ZA 2000-6912	20001124	<--
CN 1302804	A	20010711	CN 2000-128318	20001124	<--
CN 1157394	C	20040714			
BR 2000005557	A	20010717	BR 2000-5557	20001124	<--
AU 781300	B2	20050512	AU 2000-71825	20001124	
HK 1036983	A1	20041231	HK 2001-107838	20011108	

PRIORITY APPLN. INFO.: FR 1999-14771 A 19991124
OTHER SOURCE(S): MARPAT 135:5535
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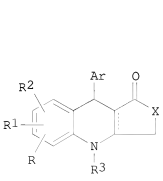

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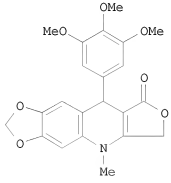


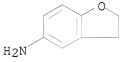
II

AB Compds. I, their preparation and use as anti-tumor agents are claimed [wherein; R = H, OH or alkoxy; R1, R2 = H, halo, (halo)alkyl, OH, alkoxy, amino, etc.; R3 = H, (hetero)aryl, cycloalkyl, hydroxy, alkoxy, amino, etc.; X = O, S, CH2 or CH2CH2; Ar = (hetero)aryl or arylalkyl]. Over 50 synthetic examples are provided. The process claimed is illustrated by the synthesis of II. N-Methyl-3,4-methylenedioxyaniline was reacted with 3-(3,4,5-trimethoxybenzylidene)-2,4-(3H,5H)-furandione in ethanol at reflux for 30 min to give II. Selected compds. were evaluated for cytotoxicity in L1210, A549 and HT29 cells; IC50 for II was 53, 102 and 104 nM resp. Compds. I were evaluated for in vivo antitumor activity against i.p. implanted murine P388 leukemia cells in BDF1 mice. At doses of 50 mg/kg i.p., II prolonged survival time to 200% of control. A sample formulation is provided.

IT 42933-43-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(reactant; synthesis and use of substituted dihydrofuro[3,4-b]quinolin-1-ones as anti-tumor agents)

RN 42933-43-7 CAPLUS

CN 5-Benzofuranamine, 2,3-dihydro- (CA INDEX NAME)



REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 17 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2001:58596 CAPLUS

DOCUMENT NUMBER: 134:115968

TITLE: 6-(4-Arylalkylpiperazin-1-yl)benzodioxane and 6-(4-arylalkylpiperazin-1-yl)chromane derivatives useful as subtype-specific dopamine receptor ligands

INVENTOR(S): Tran, Jennifer N.; Thurkauf, Andrew

PATENT ASSIGNEE(S): Neurogen Corporation, USA

SOURCE: U.S., 9 pp.
CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE	
US 6177566	B1	20010123	US 1999-343309		19990630	<--
US 20010005753	A1	20010628	US 2001-761048		20010116	<--
US 6333329	B2	20011225				
US 20020099056	A1	20020725	US 2001-27150		20011220	<--
US 6486164	B2	20021126				
PRIORITY APPLN. INFO.:			US 1998-91250P	P	19980630	
			US 1999-343309	A1	19990630	
			US 2001-761048	A1	20010116	

OTHER SOURCE(S): MARPAT 134:115968
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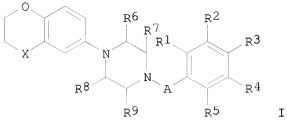


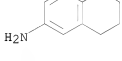
I

AB The title compds. [I; A = C1-4 alkylene optionally substituted with C1-2 alkyl; R1-R5 = H, halo, C1-6 alkyl, C1-6 alkoxy, C1-4 alkylthio, OH, amino, mono- or dialkylamino, cyano, nitro, CF3, or CF3O; R6-R9 = H, C1-6 alkyl; X = O, bond, CH2, CH2CH2, CH2O] and their pharmaceutically acceptable acid addition salts are disclosed. The compds. are useful for the treatment and/or prevention of neuropsychol. disorders including, but not limited to, schizophrenia, mania, dementia, depression, anxiety, compulsive behavior, substance abuse, Parkinson-like motor disorders, and motion disorders related to the use of neuroleptic agents. As selective ligands for dopamine D4 receptors, the compds. are expected to be relatively free of neurol. side effects. Approx. 10 salts were prepared and their free bases claimed. Thus, reaction of 1-(1,4-benzodioxan-6-yl)piperazine (preparation given) with 4-fluorobenzyl chloride in the presence of K2CO3 in MeCN afforded 34% I [X = O; A = CH2; R1 = R2 = R4 = R5 = H; R3 = F; R6-R9 = H]. This compound showed a Ki of 11 nM for D4 receptor binding, vs. Ki values of 3662 nM and >4000 nM for D3 and D2 binding, resp.

IT 50386-54-4P, 6-Aminochroman
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of (arylalkylpiperazinyl)benzodioxane and (arylalkylpiperazinyl)chroman derivs. as subtype-specific dopamine receptor ligands)

RN 50386-54-4 CAPLUS

CN 2H-1-Benzopyran-6-amine, 3,4-dihydro- (CA INDEX NAME)



REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 4 OF 17 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2000:15203 CAPLUS
DOCUMENT NUMBER: 132:78570
TITLE: Preparation of 6-(4-arylalkylpiperazin-1-yl)benzodioxane and

6-(4-arylalkylpiperazin-1-yl)chromane derivatives as dopamine receptor subtype specific ligands

INVENTOR(S): Tran, Jennifer N.; Thurkauf, Andrew
PATENT ASSIGNEE(S): Neurogen Corporation, USA

SOURCE: PCT Int. Appl., 39 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000000489	A2	20000106	WO 1999-US14426	19990625 <--
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RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2336089	A1	20000106	CA 1999-2336089	19990625 <--
AU 9947204	A	20000117	AU 1999-47204	19990625 <--
EP 1091949	A2	20010418	EP 1999-930727	19990625 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2002519350	T	20020702	JP 2000-557250	19990625 <--

PRIORITY APPLN. INFO.:
US 1998-109242 A 19980630
WO 1999-US14426 W 19990625

OTHER SOURCE(S): MARPAT 132:78570

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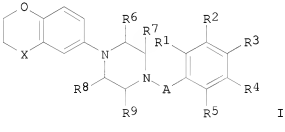
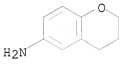


I

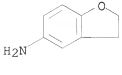
AB The title compds. [I; A = alkylene optionally substituted with alkyl; R1-R5 = H, halo, alkyl, etc.; R6-R9 = H, alkyl; X = O, a bond, alkylene, methyleneoxy] and their pharmaceutically acceptable acid addition salts which are useful for the treatment and/or prevention of neuropsychol. disorders including, but not limited to, schizophrenia, mania, dementia, depression, anxiety, compulsive behavior, substance abuse, Parkinson-like motor disorders and motion disorders related to the use of neuroleptic agents, were prepared Thus, reacting 1-(1,4-benzodioxan-6-yl)piperazine (preparation given) with 4-fluorobenzyl chloride in the presence of K2CO3 in MeCN afforded 34% I [X = O; A = CH2; R1 = R2 = R4 = R5 = H; R3 = F; R6-R9 = H] which showed Ki of 11 nM against D4 receptor binding vs. Ki of 3662 nM and

>4000 nM against D3 and D2 binding, resp.
IT 50386-54-4P, 6-Aminochroman
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of 6-(4-arylalkylpiperazin-1-yl)benzodioxane and 6-(4-arylalkylpiperazin-1-yl)chromane derivs. as dopamine receptor subtype specific ligands)
RN 50386-54-4 CAPLUS
CN 2H-1-Benzopyran-6-amine, 3,4-dihydro- (CA INDEX NAME)



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 5 OF 17 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1996:427209 CAPLUS
DOCUMENT NUMBER: 125:195464
ORIGINAL REFERENCE NO.: 125:36607a,36610a
TITLE: A convenient modification of the Gassman oxindole synthesis
AUTHOR(S): Wright, Stephen W.; McClure, Lester D.; Hageman, David L.
CORPORATE SOURCE: Pfizer Central Research, Groton, CT, 06340, USA
SOURCE: Tetrahedron Letters (1996), 37(27), 4631-4634
CODEN: TELEAY; ISSN: 0040-4039
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A modification of the Gassman oxindole synthesis is described that proceeds from anilines XC6H4NH2 (X = H, 4-MeO, 2-Me, 3-MeS, etc.) and Et (methylsulfinyl)acetate, using oxalyl chloride to activate the sulfoxide to facilitate the formation of the key N - S bonded intermediate. This procedure is particularly convenient for reactions carried out on smaller scales and for anilines that are susceptible to electrophilic halogenation.
IT 42933-43-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(Gassman oxindole synthesis from anilines and Et (methylsulfinyl)acetate)
RN 42933-43-7 CAPLUS
CN 5-Benzofuranamine, 2,3-dihydro- (CA INDEX NAME)



L4 ANSWER 6 OF 17 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1995:777739 CAPLUS
DOCUMENT NUMBER: 123:198608
ORIGINAL REFERENCE NO.: 123:35449a,35452a
TITLE: Preparation of N-aryl-2-cyano-3-hydroxy propenamide-derivative antiinflammatory agents
INVENTOR(S): Evans, Phillip L.; Kuo, Elizabeth Anne
PATENT ASSIGNEE(S): Roussel-UCLAF, Fr.
SOURCE: Eur. Pat. Appl., 19 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 652214	A1	19950510	EP 1994-402478	19941103 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
JP 07188145	A	19950725	JP 1994-290323	19941101 <--
CA 2135044	A1	19950505	CA 1994-2135044	19941103 <--

PRIORITY APPLN. INFO.: GB 1993-22781 A 19931104
OTHER SOURCE(S): MARPAT 123:198608
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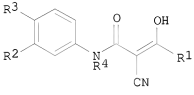
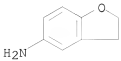
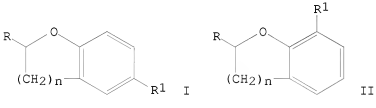


I

AB The title compds. [I; R1 = alkyl, cycloalkyl, alkenyl, alkynyl; CR2R3 = (un)substituted carbocyclic or heterocyclic ring; R4 = alkyl], useful as antiinflammatory agents, antidiabetic agents (no data), etc. (no data), are prepared and a I-containing formulation presented. Thus, N-[5-(2,3-dihydrobenzofuryl)]-2-cyano-3-cyclopropyl-3-hydroxy-2-propenamide, prepared in 4 steps from 2,3-dihydrobenzofuran, demonstrated 13% inhibition of carrageenan-induced rat-paw edema at 50 mg/kg (p.o.).
IT 42933-43-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of N-aryl-2-cyano-3-hydroxy propenamide-derivative antiinflammatory agents)
RN 42933-43-7 CAPLUS
CN 5-Benzofuranamine, 2,3-dihydro- (CA INDEX NAME)



L4 ANSWER 7 OF 17 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1988:406388 CAPLUS
DOCUMENT NUMBER: 109:6388
ORIGINAL REFERENCE NO.: 109:1205a,1208a
TITLE: Synthesis of amino-substituted 2-methylcoumarans, chromans, benzoxepanes and their N-(alkylamino)acyl derivatives
AUTHOR(S): Dauksas, V.; Petrauskas, O.; Purvaneckas, G.
CORPORATE SOURCE: Vil'nyus. Univ., Vilnius, USSR
SOURCE: Khimiya Geterotsiklicheskikh Soedinenii (1987), (3), 320-4
CODEN: KGSSAQ; ISSN: 0453-8234
DOCUMENT TYPE: Journal
LANGUAGE: Russian
OTHER SOURCE(S): CASREACT 109:6388
GI

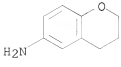


AB Nitration of 2-methylcoumarans, chromans, and benzoxepanes I and II (R = Me, R1 = H, n = 1; R = R1 = H, n = 2,3) gave mixts. of nitro derivs. I and II (R1 = NO2) which were reduced by Fe-Cu in EtOH to give the corresponding amines I and II (R1 = NH2). Acylation of the amines by Me(CH2)3CHBrCOCl gave I and II [R1 = NHCOCHBr(CH2)3Me] which could be aminated by MeNH2 or Et2NH to give I and II [R1 = NHCOCH(NHMe)(CH2)3Me, NHCOCH(NEt2)(CH2)3Me].

IT 50386-54-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and acylation of)

RN 50386-54-4 CAPLUS

CN 2H-1-Benzopyran-6-amine, 3,4-dihydro- (CA INDEX NAME)



L4 ANSWER 8 OF 17 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1983:71912 CAPLUS
DOCUMENT NUMBER: 98:71912
ORIGINAL REFERENCE NO.: 98:11003a,11006a
TITLE: Benzofuran derivatives and their use
INVENTOR(S): Schroeder, Eberhard; Lehmann, Manfred; Rufer, Clemens; Boettcher, Irmgard
PATENT ASSIGNEE(S): Schering A.-G. , Fed. Rep. Ger.
SOURCE: Eur. Pat. Appl., 27 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 59884	A1	19820915	EP 1982-101418	19820225 <--
EP 59884	B1	19850522		
R: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE				
DE 3110009	A1	19820930	DE 1981-3110009	19810311 <--
AT 13429	T	19850615	AT 1982-101418	19820225 <--
JP 57203079	A	19821213	JP 1982-37308	19820311 <--
JP 03008350	B	19910205		
US 4411910	A	19831025	US 1982-357344	19820311 <--
PRIORITY APPLN. INFO.:			DE 1981-3110009 A	19810311
			EP 1982-101418 A	19820225

OTHER SOURCE(S): CASREACT 98:71912; MARPAT 98:71912
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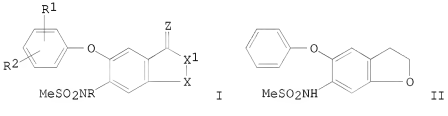
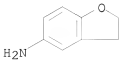


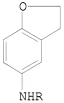
AB Benzofurans I (R = H, Ac; R1, R2 = H, F, Cl; X = O, CH2; X1 = CH2, O; Z = O, H2), useful as inflammation inhibitors, analgesics, antipyretics, diuretics, thrombocyte aggregation inhibitors, anti-ulcer agents, tumor inhibitors, and in treatment of dysmenorrhea and migraine (no data), were prepared Thus, 2,3-dihydrobenzo[b]furan-5-amine was converted in 7 steps by known methods into methanesulfonamide II.
IT 42933-43-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(N-acetylation of)
RN 42933-43-7 CAPLUS
CN 5-Benzofuranamine, 2,3-dihydro- (CA INDEX NAME)



L4 ANSWER 9 OF 17 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1983:16571 CAPLUS
DOCUMENT NUMBER: 98:16571
ORIGINAL REFERENCE NO.: 98:2683a,2686a
TITLE: Acetophenetidine analogs
INVENTOR(S): Blade Font, Arturo; De Mass Rocabayera, Teodoro; Palop Palop, Daniel; Escartin Tomas, Pilar
PATENT ASSIGNEE(S): Laboratorios Frumtost-Prem S. A., Spain
SOURCE: Span., 16 pp.
CODEN: SPXXAD
DOCUMENT TYPE: Patent
LANGUAGE: Spanish
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
ES 504326	A1	19820601	ES 1981-504326	19810728 <--
PRIORITY APPLN. INFO.:			ES 1981-504326	19810728

GI



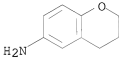
I

AB Acylaminobenzofurans I (R = acyl) were prepared Thus 2,5-HO(AcNH)C6H3CH2NEt2.MeI was treated with 450% excess CH2N2 to give 39% I (R = Ac) which at 25 mg/kg gave 30.66% inhibition of HOAc-induced writhing in mice.
IT 42933-43-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and acylation of)
RN 42933-43-7 CAPLUS
CN 5-Benzofuranamine, 2,3-dihydro- (CA INDEX NAME)

L4 ANSWER 10 OF 17 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1982:16951 CAPLUS
DOCUMENT NUMBER: 96:16951
ORIGINAL REFERENCE NO.: 96:2827a,2830a
TITLE: Reagents for detection of urobilinogen in body fluids
PATENT ASSIGNEE(S): Eiken Chemical Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 56118670	A	19810917	JP 1980-21692	19800225 <--
JP 63048311	B	19880928		

PRIORITY APPLN. INFO.: JP 1980-21692 A 19800225
AB Compns. containing phenyldiazonium salts (2,3-dihydroxybenzofuran-5-diazonium tetrafluoroborate, 2,3-dihydroxybenzothiophene-5-diazonium tetrafluoroborate, 1,4-benzodioxane-6-diazonium tetrafluoroborate, 2,3-dihydroxybenzofuran-7-diazonium tetrafluoroborate, 1-acetyl-2,3-dihydroindole-5-diazonium sulfate) and organic acids and(or) inorg. acids are reagents for the detection of urobilinogens in body fluids. As an example, filter papers (Whatman 3MM) were immersed in a solution containing 2,3-dihydroxybenzofuran-5-diazonium tetrafluoroborate, oxalic acid, Na laurylsulfate, MeOH and distilled H2O, and dried at 40°. Development of a pink color is indicative of pos. results. Detection limits were .apprx.0.4 mg/dL.
IT 50386-54-4
RL: ANST (Analytical study)
(diazotization and reaction of, with sodium dodecylbenzenesulfonate)
RN 50386-54-4 CAPLUS
CN 2H-1-Benzopyran-6-amine, 3,4-dihydro- (CA INDEX NAME)

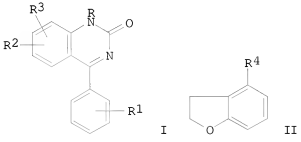


L4 ANSWER 11 OF 17 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1977:5484 CAPLUS
DOCUMENT NUMBER: 86:5484
ORIGINAL REFERENCE NO.: 86:951a,954a
TITLE: Tricyclic furoquinazolinones
INVENTOR(S): Cooke, George A.; Houlihan, William J.
PATENT ASSIGNEE(S): Sandoz-Wander, Inc., USA
SOURCE: U.S., 11 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English

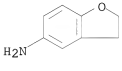
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3963717	A	19760615	US 1975-556574	19750310 <--

PRIORITY APPLN. INFO.: US 1975-556574 19750310
GI

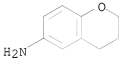


AB Antiinflammatory and analgesic (no data) furoquinazolinones I (R = CHMe2, cyclopropylmethyl, cyclopentylmethyl, CMe3, CH2CMe:CH2, Et; R1 = H, 4-F, 4-CF3, 3-OMe; R2R3 = 7,8-OCH2CH2, 6,7-OCH2CH2, 5,6-CH2CH2O, 6,7-CH2CH2O, 5,6-OCH2CH2, 7,8-CH2CH2O) (38 compds.) were prepared Thus the benzofuranamine II (R4 = NH2) was treated with Me2CHI, II (R4 = NHCHMe2) treated with NaNCO, II [R4 = N(CHMe2)CONH2] condensed with PhCHO and oxidized with KMnO4 to give I (R = CHMe2, R1 = H, R2R3 = 7,8-OCH2CH2).
IT 42933-43-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with isopropyl iodide)
RN 42933-43-7 CAPLUS
CN 5-Benzofuranamine, 2,3-dihydro- (CA INDEX NAME)

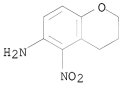


L4 ANSWER 12 OF 17 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1973:526238 CAPLUS
DOCUMENT NUMBER: 79:126238
ORIGINAL REFERENCE NO.: 79:20487a,20490a
TITLE: Nitration of substituted chromans
AUTHOR(S): Brancaccio, G.; Lettieri, G.; Viterbo, R.
CORPORATE SOURCE: Res. Lab., Richardson-Merrell S.p.A., Naples, Italy
SOURCE: Journal of Heterocyclic Chemistry (1973), 10(4), 623-9
CODEN: JHTCAD; ISSN: 0022-152X

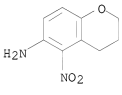
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The nitration of Cl-, AcNH-, Me-, and NO2-substituted chromans was studied and the structure of the nitro compds. confirmed by chemical and spectral data.
IT 50386-54-4
RL: RCT (Reactant); RACT (Reactant or reagent)
(Sandmeyer chlorination of)
RN 50386-54-4 CAPLUS
CN 2H-1-Benzopyran-6-amine, 3,4-dihydro- (CA INDEX NAME)



IT 50386-66-8P 50603-85-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 50386-66-8 CAPLUS
CN 2H-1-Benzopyran-6-amine, 3,4-dihydro-5-nitro- (CA INDEX NAME)



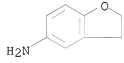
RN 50603-85-5 CAPLUS
CN 2H-1-Benzopyran-6-amine, 3,4-dihydro-5-nitro-, hydrochloride (1:1) (CA INDEX NAME)



● HCl

L4 ANSWER 13 OF 17 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1973:418859 CAPLUS
DOCUMENT NUMBER: 79:18859
ORIGINAL REFERENCE NO.: 79:3035a,3038a
TITLE: Natural and synthetic materials with insect hormone

activity. XVI. Synthesis of
N-geranylaniline-containing oxygen heterocyclics
AUTHOR(S): Kahovcova, Jitka; Arnold, Zdenek; Sorm, Frantisek
CORPORATE SOURCE: Cesk. Akad. Ved, Prague, Czech.
SOURCE: Collection of Czechoslovak Chemical Communications (
1973), 38(4), 1165-7
CODEN: CCCCAK; ISSN: 0010-0765
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The reaction of 4-amino-1,2-methylenedioxybenzene with geranyl bromide in DMF in the presence of anhydrous K2CO3 at 70° gave 4-(3,7-dimethyl-2,6-octadienylamino)-1,2-methylenedioxybenzene (I) and 4-[bis(3,7-dimethyl-2,6-octadienyl)amino]-1,2-methylenedioxybenzene. Similar reactions were performed with 5-amino-2,3-dihydrobenzofuran, 5-aminobenzofuran-2-carboxylic acid, 5-amino-benzo-1,3-dioxane, and 5-aminobenzo-1,4-dioxane. From I, 4-(6,7-epoxy-3,7-dimethyl-2-octenylamino)-1,2-methylenedioxybenzene and 4-(3,7-dimethyloctylamino)-1,2-methylenedioxybenzene were also prepared
IT 42933-43-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with geranylbromide)
RN 42933-43-7 CAPLUS
CN 5-Benzofuranamine, 2,3-dihydro- (CA INDEX NAME)



L4 ANSWER 14 OF 17 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1966:4088 CAPLUS
DOCUMENT NUMBER: 64:4088
ORIGINAL REFERENCE NO.: 64:707e-h,708a
TITLE: Amines
PATENT ASSIGNEE(S): F. Hoffmann-La Roche & Co., A.-G.
SOURCE: 9 pp.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
NL 6414649		19650621	NL 1964-14649	19641216 <--
BE 657234			BE	
FR 1417774			FR	
GB 1043486			GB	
PRIORITY APPLN. INFO.:			CH	19631220

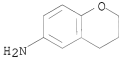
GI For diagram(s), see printed CA Issue.
AB Amines with the general formula I, where n is 0-3, R1, R2, and R3 are H or Me, R4 is an alkyl group, and R5 is H or an alkyl group, can be prepared from an aminophenol with the general formula II, where R4' is H or an alkyl group, and R5' is H, acyl, or an alkyl group, and alcohols of the

general formulas CH2:CHC(CH3)(OH)[CH2CH2CH2CH(CH3)]CH3 or HOCH2CH:C(CH3)nCH2CH2CH2CH(CH3)nCH3 or their esters. Thus, to a mixture of 11. freshly distilled formic acid (99%) and 120 g. 2,3,5-trimethyl-4-formylaminophenol, 200 g. isophytol was added. With addition of N2 and refluxing, mixture was stirred for 22 hrs. at 135°. After cooling mixture was poured on 2 kg. ice and a brown oil formed. Yield was 130 g. α-tocopheramine, b0.01 200-3°, absorption maximum at 300 mμ (E11 85), which was acylated and then reduced to give N-ethyl-γ-tocopheramine, a light yellow oil, b0.01 211-14°, uv absorption maximum at 299 mμ (E11 52), n24.5D 1.5086. Similarly obtained, starting with 2,3-dimethyl-4-formylaminophenol, was N-ethyl-γ-tocopheramine, b0.05 195-7°, uv absorption maximum at 238 and 305 mμ (E11 195 and 69), n22.5D 1.5083. In 9 g. dry formic acid, 10 g. α-tocopheramine and 6 g. of a 40% formaldehyde solution were heated for 16 hrs. to boiling. Yield was N,N-dimethyl-γ-tocopheramine, b0.02, 200-5°, n23D 1.5015. Similarly obtained, starting with δ-tocopheramine, was N,N-dimethyl-δ-tocopheramine, b0.007 183-8°, n19D 1.5080, absorption maximum at 244 and 304 mμ (E11 268 and 58). In 1 l. dry formic acid 174 g. N-formyl-2,3-dimethyl-4-aminophenol was dissolved under N2, 220 g. isophytol was added, and the mixture refluxed for 22 hrs. after which it was poured on 2 kg. ice. Yield was N-formyl-γtocopheramine, b0.01 233°, n24.5D 1.5158, which was reduced to yield N-methyl-γ-tocopheramine, a light yellow oil, b. 190-5°, n22D 1.5083, absorption maximum at 306 mμ (E11 74). Similarly obtained, starting with N-formyl-δ-tocopheramine, was N-methyl-δ-tocopheramine, b0.005 189-90°, n22.5D 1.5106, uv absorption maximum at 242 and 309 mμ (E11 225 and 66). Also obtained starting with N-formyl-β-tocopheramine, was N-methyl-β-tocopheramine, b0.03 207-10°, n21D 1.5088, absorption maximum at 234 and 300 mμ (E11 182 and 77). The compds. are useful as anti-oxidants.

IT 50386-54-4, 6-Chromanamine
(derivs.)

RN 50386-54-4 CAPLUS

CN 2H-1-Benzopyran-6-amine, 3,4-dihydro- (CA INDEX NAME)



L4 ANSWER 15 OF 17 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1961:18014 CAPLUS

DOCUMENT NUMBER: 55:18014

ORIGINAL REFERENCE NO.: 55:3618h-i,3619a

TITLE: Aminochroman derivatives

INVENTOR(S): Hach, V.

DOCUMENT TYPE: Patent

LANGUAGE: Unavailable

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

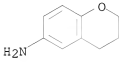
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CS 91157		19590715	CS	<--

AB Chroman (20 g.) treated with 100 ml. 60% HNO_3 at 15-25° and the mixture (after 10 min. at room temperature) diluted with 100 g. ice and 400 ml. H_2O gave 9.5 g. 6-nitrochroman (I), m. 102-3° (EtOH). I (9 g.) was hydrogenated in 100 ml. 96% EtOH over 1 g. Raney Ni at room temperature and normal pressure. Filtration and evaporation gave a quant. yield of 6-aminochroman (II), m. 74° (petr. ether). II (12 g.) in 50 ml. AcOH was cooled to 10° and treated with 12 g. $ClCH_2COCl$. The mixture, diluted with 50 g. AcONa in 150 ml. H_2O and filtered, gave 15 g. 6-chloroacetamidochroman (III), m. 125°. Reaction of III with Et_2NH gave 90-95% 6-diethylaminoacetamidochroman (IV); HCl salt m. 163°; ethobromide m. 188°. Similarly, III and piperidine gave 6-piperidinoacetamidochroman (V); HCl salt m. 225°. Salts of IV and V were local anesthetic and hypotensive agents.

IT 50386-54-4P, 6-Chromanamine
RL: PREP (Preparation)
(preparation of)

RN 50386-54-4 CAPLUS

CN 2H-1-Benzopyran-6-amine, 3,4-dihydro- (CA INDEX NAME)



L4 ANSWER 16 OF 17 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER:	1960:11424 CAPLUS
DOCUMENT NUMBER:	54:11424
ORIGINAL REFERENCE NO.:	54:2322f-i,2323a-b
TITLE:	Local anesthetics. XI. Simple chroman derivatives
AUTHOR(S):	Hach, V.
CORPORATE SOURCE:	Leciva, Dolni Mecholupy, Prague
SOURCE:	Collection of Czechoslovak Chemical Communications (1959), 24, 3136-40 CODEN: CCCCAK; ISSN: 0010-0765
DOCUMENT TYPE:	Journal
LANGUAGE:	German

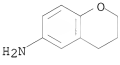
AB cf. C.A. 52, 4652e. 6-(Diethylaminoacetylamino)chroman (I), 6-(piperidinoacetylamino)chroman (II), and 6-(β-piperidinopropionyl)chroman (III) were prepared as cyclic analogs of p-alkoxy-substituted dialkylaminoacylanilides (IV) and of fallicain (V), resp., and tested in the form of the HCl salts as surface and infiltration anesthetics; their activity, however, was lower than that of IV and V. Introducing 3 hrs. at 0° HBr (prepared from 300 g. Br in H) into 20 g. o-CH_2:$CHCH_2C_6H_4OAc$, 100 ml. CCl_4 (dried over P_2O_5), and 2 g. Bz_2O_2, keeping the mixture overnight, evaporating the solvent, adding 150 ml. 10% NaOH, extracting the mixture with Et_2O, evaporating the exts., adding 10 g. NaOH, 50 ml. H_2O, and 100 ml. EtOH to the oily residue, boiling the mixture 2.5 hrs.,

diluting with H2O, extracting with Et2O, evaporating, and distilling gave chroman (VI), b24-27 100-105°, n20D 1.5480. Adding dropwise and with vigorous agitation in 12 min. at 15-25° 20 g. VI to 100 ml. 60% HNO3 gave a blue-green mixture which was kept 10 min. at 20° and then poured into 100 g. ice and 400 ml. H2O; an oily precipitate separated which on addition of 10-15 ml. EtOH gave 9.5 g. yellow powder of 6-nitrochroman (VII), m. 104° (EtOH). Hydrogenating 1 hr. 9 g. VII, 100 ml. 96% EtOH, and 1 g. Raney Ni at 20° and atmospheric pressure, filtering off the catalyst, and evaporating gave 6-aminochroman (VIII), m. 74° (petr. ether); picrate m. 203° (EtOH); N-Ac derivative (IX) m. 118° (EtOH). Adding in one portion at 10° 12 g. ClCH2COCl to 12 g. VIII in 50 ml. AcOH and pouring the mixture after 1 min. into 50 g. NaOAc in 150 ml. H2O gave 15 g. 6-(chloroacetylamino)chroman (X), m. 125° (EtOH). Treating as usual (C.A. 49, 979e) Et2NH in C6H6 with X gave 90-95% I, b0.3 180-5°, m. 63° (petr. ether); HCl salt (prepared in Et2O solution) m. 163° (EtOH); picrate m. 201° (EtOH); ethobromide (prepared in acetone solution) m. 188° (EtOH-Et2O). Similarly was prepared II, b0.5 190-5°; HCl salt m. 225° (EtOH); picrate m. 217° (EtOH). 6-Acetylchroman (XI) was prepared according to Chatelus (C.A. 44, 1975c), m. 43° (petr. ether); oxime (XII) m. 88° (EtOH); thiosemicarbazone m. 219° (EtOH). Heating exactly 7.5 min. at 100-10° 2.5 g. XII, 20 ml. 85% H3PO4, and 35 g. P2O5, pouring the mixture onto ice, extracting with Et2O, and evaporating the exts. gave 1.6 g. IX. Heating 8 hrs. on a steam-bath 8.8 g. XI, 11.1 g. piperidine HCl salt, 8 g. (HCHO)x, and 150 ml. absolute EtOH, keeping the mixture 48 hrs. at 5°, filtering off the precipitate, and washing with 25 ml. EtOH gave 10.3 g. III HCl salt, m. 202° (EtOH).

IT 50386-54-4P, 6-Chromanamine 101093-09-8P, 6-Chromanamine, picrate
RL: PREP (Preparation)
(preparation of)

RN 50386-54-4 CAPLUS

CN 2H-1-Benzopyran-6-amine, 3,4-dihydro- (CA INDEX NAME)

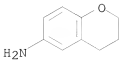


RN 101093-09-8 CAPLUS

CN 2H-1-Benzopyran-6-amine, 3,4-dihydro-, compd. with 2,4,6-trinitrophenol (1:1) (CA INDEX NAME)

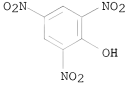
CM 1

CRN 50386-54-4
CMF C9 H11 N O



CM 2

CRN 88-89-1
CMF C6 H3 N3 O7



L4 ANSWER 17 OF 17 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1923:8151 CAPLUS
DOCUMENT NUMBER: 17:8151
ORIGINAL REFERENCE NO.: 17:1447f-i,1448a-c
TITLE: Rings through the m- and p-positions of benzene. A study of certain ethers of resorcinol and m-aminophenol
AUTHOR(S): Wilson, W. C.; Adams, Roger
SOURCE: Journal of the American Chemical Society (1923), 45, 528-40
CODEN: JACSAT; ISSN: 0002-7863
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

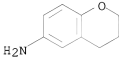
AB Attempts to close m- and p-rings, starting from various types of phenol ethers, were unsuccessful. Resorcinol bis-β-bromoethyl ether, from 6H4(ONa)2 and (CH2Br)2 in alc., m. 94.5-5.0°, b9 166-7°. Bis-γ-bromopropyl ether, from 6H4(OH)2, CH2(CH2Br)2 and K2CO3 in Me2CO-H2O, m. 67°, b6 204-6°; with 6H4(ONa)2 there are formed, in addition, 3 other products: the γ-bromopropyl allyl ether, 6H4(OCH2CH:CH2)OCH2CH2CH2Br, m. 88-9°, γ-propyloxyphenyl(allyloxyphenyl)trimethyleneglycol, m. 119-20°, and resorcinol diallyl ether, b12 156-8°, d2020 1.1645, nD20 1.5672. Bis-γ-iodopropyl ether, from the Br compound in aqueous Me2CO with NaI, m. 88-9°, is partly converted by Na in Et2O into the dipropyl ether, also obtained from 6H4(OH)2, PrBr and K2CO3 in Me2CO, b12 127-8°, d2121 1.035, nD33 1.5138. Bis-γ-amylaminopropyl ether, from 6H4(OCH2CH2CH2I)2 and AmNH2 heated alone or in PhMe, b10 249-52°; dihydrochloride, m. 287°. Bis-γ-cyanopropyl ether, from the I compound and NaCN in aqueous alc., b7 236-7°, m. 31-2°, converted by Na in alc. into the bis-δ-aminobutyl ether, b7 208-9° d2020 1,0589, nD26 1.5315, whose dihydrochloride m. 248-9° and monohydrochloride m. 233-4°; the latter, distilled under 7 mm., decomps. into pyrrolidine, m-6H4(OH)2 and resorcinol mono-δ-aminobutyl ether, b8

198-204°, m. 119-9.5° (hydrochloride, m. 159-61°), which in NaOH with p-O2NC6H4COCl gives resorcinol mono-δ-p-nitrobenzoylaminobutyl ether p-nitrobenzoate, m. 123-4°, m-Nitrophenyl γ-bromopropyl ether, from O2NC6H4OH, CH2(CH2Br)2 and Na in alc., b7 186-8°, d2020 1.513, nD25 1.5700, reduced by SnCl2-HCl to the m-amino compound, unstable yellow oil (hydrochloride, m. 114-5°), which, refluxed in C6H4, gives 6-aminochroman, b7 140-2°, d2020 1.1549, nD25 1.5944; hydrochloride, begins to decompose 134°, m. 158-60°; picrate darkens 156-60°, m. 182-3°; chloroplatinate, m. 224-5°, decomps. 227°; benzenesulfonyl derivative, m. 148-8.5°. The diazotized chroman couples with β-naphthol to a red substance, C19H16O2N2. m-Nitrophenyl allyl ether, from O2NC6H4OH, CH2:CHCH2Br and Na in alc., b8 136-7°, m. 31.5-2.0°; m-amino compound, b5 120-2°, d2020 1.0891, nD25 1.5708; hydrochloride, m. 145-6°; benzenesulfonyl derivative, m. 83-3.5°. p-Nitrophenol β-bromoethyl ether, from O2NC6H4ONa and (CH2Br)2 in H2O, m. 64°; p-amino compound m. 84°; hydrochloride, m. 196°.

IT 50386-54-4P
RL: SPN (Synthetic preparation); PRP (Properties); PREP (Preparation)
(Rings through the m- and p-positions of benzene. A study of certain ethers of resorcinol and m-aminophenol)

RN 50386-54-4 CAPLUS

CN 2H-1-Benzopyran-6-amine, 3,4-dihydro- (CA INDEX NAME)



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L1 STRUCTURE UPLOADED
S L1

FILE 'REGISTRY' ENTERED AT 18:16:00 ON 24 MAR 2009
L2 6 S L1 FULL

FILE 'CAPLUS' ENTERED AT 18:16:07 ON 24 MAR 2009
L3 41 S L2 FULL
L4 17 S L3 AND PY<2003

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